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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/814,165	04/01/2004	Tac Min Kim	K-0630	7365
34610 7590 11/06/2007 KED & ASSOCIATES, LLP P.O. Box 221200 Chantilly, VA 20153-1200				
			EXAMINER KOCZO JR, MICHAEL	
			ART UNIT 3746	PAPER NUMBER
			MAIL: DATE 11/06/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/814,165

Applicant(s)

KIM ET AL.

Examiner

Michael Koczo, Jr.

Art Unit

3746

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 October 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-18,21 and 22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-18,21 and 22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 April 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

Drawings

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: Numeral 330c' (para. 0050). Applicant argues that in figure 2, "reference numeral 330c'... is shown, just to the left of the motor part 200." However, inspection of figure 2 shows that it is numeral "300c'" which is shown just to the left of motor part 200, not numeral 330c'.

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the structure of claim 1 (wherein the at least one transit tube at least partially surrounds an outer circumferential surface of the end of the loop pipe) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must

Art Unit: 3746

be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

Claims 1, 4, 5, 8, 9, 14, 15, 16, 18, 21 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over McCloy (US 3,066,857) in view of either of Touborg (US 2,587,246) or Quesada et al (US 5,059,100). McCloy discloses an hermetic compressor having a muffler 48 and a loop pipe 50 connected to the muffler and to the hermetic container 12 for discharging the refrigerant to the outside of the hermetic container. However, McCloy does not disclose a transit tube coupled to an end of the loop pipe. Quesada et al show a transit tube 32 in figure 2 which is attached to the loop pipe 31. Touborg shows a transit tube 74 in figure 2 which is attached to the loop pipe. The transit tubes provide structural support for the discharge pipe where the discharge pipe is connected to structure such as the compressor casing or the compressor. Therefore, to provide the loop pipe with a transit tube at the connection with the compressor would have been obvious to one of ordinary skill in the art (claim 4). One of ordinary skill in the art would also realize that the transit tubes of either of Quesada et al or Touborg at least partially surround the loop pipe.

Regarding claim 5, Official Notice is taken of the fact that refrigerant tubes are conventionally made of metal.

Regarding claim 9, to pass the discharge pipe through the lower container is deemed to be a matter of design choice since it does not effect an unobvious or unexpected result.

Claims 2, 7, 10, 11 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over McCloy in view of either of Touborg or Quesada et al, as applied to claim 2 above, and further in view of Roelsgaard (US 3,187,996). McCloy, as previously modified, teaches the invention substantially as claimed. However, McCloy does not disclose that the loop pipe 50 is made of a synthetic resin. Roelsgaard discloses an hermetic compressor having a pipe 21 connecting the compressor and the casing (fig. 2). The pipe 21 is connected to transit tubes 14a. The pipe 21 is made of a synthetic plastic having a thermal conductivity lower than metal in order to reduce heat transfer from the pipe 21 into the interior of the casing 2. In view of this teaching, it would have been obvious to make the pipe 50 of McCloy, as previously modified, of a synthetic plastic or resin having a low thermal conductivity. Regarding claim 10, Roelsgaard also teaches locating the motor in the lower portion of the container 2. In view of this teaching, it would have been obvious to invert the motor/compressor of McCloy so that the motor is located in the lower portion of the container.

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over McCloy in view of either of Touborg or Quesada et al, and Roelsgaard, as applied to claim 2 above, and further in view of Yoshimura (US 6,152,703). Yoshimura et al disclose a suction pipe for an hermetic compressor that is made of Teflon. Teflon is a material having low heat conductivity (see col.

Art Unit: 3746

44, l. 58). In view of this teaching, it would have been obvious to make the loop pipe 50 of McCloy, as previously modified, of Teflon.

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over McCloy in view of either of Touborg or Quesada et al, and Roelsgaard, as applied to claim 2 above, and further in view of Andrione et al (US 4,478,559). Andrione et al disclose a hermetic compressor having a balance weight 42 on the rotation shaft to reduce vibration. In view of this teaching, it would have been obvious to provide the rotation shaft 26 of McCloy with a balance weight.

Claims 17 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over McCloy in view of either of Touborg or Quesada et al, as applied to claim 1 above, and further in view of Seo (US 2004/0009077). Seo discloses plural mufflers 110 and 120 on opposite sides of a compressor for improved noise attenuation. In view of this teaching, it would have been obvious to provide the compressor of McCloy with plural mufflers. Regarding claim 23, reciting that the pseudo-discharge muffler acts as a balance weight for the discharge muffler is merely a recitation of a desired result. Each of the mufflers of Seo clearly capable of acting as a balance weight for the other muffler in view of the structural similarity between them and the claimed mufflers.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

Art Unit: 3746

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

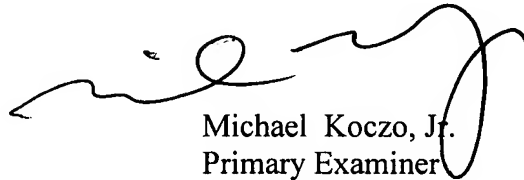
Any inquiry relating to patent applications in general should be directed to the Patent Assistance Center at 1-800-786-9199.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Kocz, Jr. whose telephone number is 571-272-4830. The examiner can normally be reached on M-Th; 7:00-3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Devon C. Kramer can be reached at 571-272-7118. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3746

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Michael Koczo, Jr.
Primary Examiner
Art Unit 3746